

Earl H. and Sandra Weaver

The Weaver Lecture Series in Forestry is made possible through an endowed gift from Earl H. and Sandra H. Weaver of Brewton, Alabama. Dr. and Mrs. Weaver have long been interested in both Auburn University and in forestry. Their gift brings these two interests together in a program that benefits both faculty and students. The Weavers maintain their interest in Auburn University and in forestry by active participation in the Auburn University Alumni Association, where Dr. Weaver is past president, and through management of family-owned timberlands in Alabama and Mississippi. Dr. Weaver is also the past president of the Auburn University Foundation. Auburn University and the School of Forestry and Wildlife Sciences greatly appreciate the Weavers' generosity and support for the Weaver Lectures.



SCHOOL OF FORESTRY
AND WILDLIFE SCIENCES



Weaver Lecture Series

Studying birds in the context of the annual cycle:
Carry-over effects and seasonal interactions

—
Peter Marra, PhD
*Smithsonian Migratory Bird Center,
National Zoological Park, Washington, D.C.*

—
*Tuesday, March 20, 2018
3:00 p.m.*

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Peter Marra

Pete Marra earned a Ph.D. from Dartmouth College in 1998 and an M.S. from Louisiana State University, in 1989. He has been a conservation scientist at the Smithsonian Institution's Conservation Biology Institute since 1999. His research has encompassed four broad areas, including migration, climate, disease and urban ecology. Pete's research is international and his work on the non-breeding season ecology of migratory birds has gone on continuously since 1989. Pete's research has always emphasized connecting events throughout the year to understand the biology of animals in the context of the full annual cycle. His papers have appeared in *Science*, *Nature*, *PNAS*, *PLOS Biology*, *Proceedings of the Royal Society*, *Conservation Biology*, *Ecological Monographs*, *Biological Conservation* and *Frontiers in Ecology and the Environment*.

Abstract

Migratory birds spend different parts of the annual cycle in geographically disparate places. The conditions and selective pressures during each period are likely to affect individual performance during subsequent periods. This simple fact presents us with considerable obstacles for understanding how agents of global change (i.e., climate, land-use) will influence the ecology, evolution, and conservation of migratory birds. Such inter-seasonal effects are poorly understood within most avian migration systems, in large part because it has been difficult to follow individuals and specific populations year round (i.e., migratory connectivity). In addition, for most species there exists an extreme research bias towards breeding rather than non-breeding season biology. Furthermore, the limiting factors and regulatory mechanisms that determine abundance remain poorly understood for most bird species. Here, I will show using long-term research on several species from throughout their annual cycle how events on wintering grounds acting on individuals, as well as density-dependent survival have important consequences for breeding events and annual survival. Understanding how global change will influence migratory organisms requires the study of biological phenomena in the context of the entire annual cycle.



P R O G R A M

Welcome and Introduction

Dr. Christopher Lepczyk

Weaver Lecture

*"Studying birds in the context of the annual cycle:
Carry-over effects and seasonal interactions"*

Presentation of Weaver Lecture Award

Dr. Graeme Lockaby